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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/806,800

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Gilles G. Fayad

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05/29/2008

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EXAMINER

RIYAMI, ABDULLA A

ART UNIT

PAPER NUMBER

2616

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/806,800	<b>Applicant(s)</b> FAYAD ET AL.	
	<b>Examiner</b> ABDULLAH RIYAMI	<b>Art Unit</b> 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This is in response to an amendment/response filed on 04/08/2008. Claims 1-29 and 46-55 have been cancelled. Claims 30, 32, 34, 37, 38, 40, and 45 have been amended. Claims 30-45 remain pending in the application. No new claims have been added.

### ***Claim Rejections - 35 USC § 103***

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 30-32, 38-40, 46-48, and 50-52 are rejected under 35 U.S.C. 103 as being unpatentable by Farris et al. (US 6438218 B1) in view of Vaziri et al. (US 6377570).

As per claim 30, Farris et al. teaches of a method for use by a first gateway (see figure 4, block 72) to establish data communication between a first client modem (see figure 4, block 64) and a second client modem (see figure 4, block 66) over a packet network (see figure 4, block 84), the method comprising: receiving a call from the first client modem over a first telephone line (see column 12, lines 23-45 and figure 4, block 72); negotiating, in response to the call, over the first telephone line with the first client modem to establish a first physical modem connection (see column 10, lines 10-67) between the first client modem and a first gateway of said first gateway; informing a second gateway of the call over the packet network (see, receiver router, column 10, lines 1-30); establishing a gateway-to-gateway transport link with the second gateway over the packet network (see TCP/IP format, column 10, lines 1-30); determining a set of data link parameters supported by the first client modem, the first gateway modem, a second gateway of the second gateway and the second client

modem (see column 12, lines 10-23 and column 6, lines 5-22);  
establishing a first data link protocol over the first physical modem connection using the set of data link parameters (see column 6, lines 60-64);  
wherein data is communicated between the first client modem and the second client modem over an end-to-end reliable connection (see TCP/IP format, column 10, lines 1-30) between the first client modem at one end and the second client modem at the other end, wherein the end-to-end reliable connection (see column 6, lines 55-65) uses the set of data link parameters (see column 12, lines 10-23 and column 6, lines 5-22).

Farris et al. does not expressly disclose that the first gateway has a modem that establishes the physical connection to the client modem, and the modem handshaking communications.

Vaziri et al. discloses that the first gateway has a modem that establishes the physical connection to the client modem (see figure 7b and 9, modem rack with ISP) receiving, a first set of data link parameters supported by said first client modem; receiving a second set of data link parameters supported by both a second gateway modem of said second gateway and said second client modem; harmonizing a set of data link parameters supported by said first gateway with said first set of data link parameters and said second set of data link parameters to determine a final set of data link parameters supported by all of said first client modem, said first gateway modem, said second gateway modem and said second client modem (see figure 7b, 7c and 9, modem rack with ISP and column 14, lines 55 - column 15, line 5 and column 22, lines 26-61, modem handshaking).

Farris et al. and Vaziri et al. are analogous art since they are from the same field of endeavor of voice calls over the packet network.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Vaziri et al.'s gateway modem (see figure 7b, modem rack) in Farris et al.'s gateway.

The motivation to combine would have been to have a gateway modem which translates telephone network information of different protocols to packets in a telecommunication network and more particularly controlling the functionality of digital signal processing in a flexible manner for transmitting TDM telecommunications over the packet network.

As per claim 31, Farris et al. teaches of a method, wherein the second gateway informs the second client modem of the call over a second telephone line, and wherein the second gateway negotiates with the second client modem over the second telephone line to establish a second physical modem connection (see column 10, lines 1-30 and column 12, lines 10-23).

As per claim 32, Vaziri et al. teaches of a method, wherein, during the harmonizing, the second gateway establishes a second data link protocol over the second physical modem connection using the set of data link parameters (see column 22, modem handshaking).

As per claim 38, Farris et al. teaches of a first gateway (see figure 4, block 72) capable of establishing data communication between a first client modem (see figure 4, block 64) and a second client modem (see figure 4, block 66) over a packet network

(see figure 4, block 84), the first gateway comprising: a receiver (see figure 5) configured to receive a call from the first client modem over a first telephone line (see column 12, lines 23-45 and figure 4, block 72); a controller (see figure 5, block 87) configured to negotiate, in response to the call, over the first telephone line with the first client modem to establish a first physical connection (see column 10, lines 10-67) between the first client modem and a first gateway of said first gateway (see response to argument), wherein the controller is further configured to inform a second gateway (see, receiver router, column 10, lines 1-30) of the call over the packet network and establish a gateway-to-gateway transport link (see TCP/IP format, column 10, lines 1-30) with the second gateway over the packet network; wherein the controller is further configured to determine a set of data link parameters supported by the first client modem, the first gateway modem, a second gateway of the second gateway and the second client modem (see column 12, lines 10-23 and column 6, lines 5-22), and establish a first data link protocol over the first physical modem connection using the set of data link parameters (see column 6, lines 60-64); wherein data is communicated between the first client modem and the second client modem over an end-to-end reliable connection (see TCP/IP format, column 10, lines 1-30) between the first client modem at one end and the second client modem at the other end (see column 6, lines 55-65), wherein the end-to-end reliable connection uses the set of data link parameters (see column 12, lines 10-23 and column 6, lines 5-22).

Farris et al. does not expressly disclose that the first gateway has a modem that establishes the physical connection to the client modem, and the modem handshaking communications.

Vaziri et al. discloses that the first gateway has a modem and controller that establishes the physical connection to the client modem (see figure 7b and 9, modem rack with ISP) receiving, a first set of data link parameters supported by said first client modem; receiving a second set of data link parameters supported by both a second gateway modem of said second gateway and said second client modem; harmonizing a set of data link parameters supported by said first gateway with said first set of data link parameters and said second set of data link parameters to determine a final set of data link parameters supported by all of said first client modem, said first gateway modem, said second gateway modem and said second client modem (see figure 7b, 7c and 9, modem rack with ISP and column 14, lines 55 - column 15, line 5 and column 22, lines 26-61, modem handshaking).

Vaziri et al. and Farris et al. are analogous art since they are from the same field of endeavor of voice calls over the packet network.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to use Vaziri et al.'s gateway modem (see figure 7b) in Farris et al.'s gateway (see figure 4, internet module).

The motivation to combine would have been to have a gateway modem which translates telephone network information of different protocols to packets in a telecommunication network and more particularly controlling the functionality of digital



signal processing in a flexible manner for transmitting TDM telecommunications over the packet network.

As per claim 39, Farris et al. teaches of a first gateway (see figure 4, block 72), wherein the second gateway informs the second client modem of the call over a second telephone line, and wherein the second gateway negotiates with the second client modem over the second telephone line to establish a second physical modem connection (see column 10, lines 1-30 and column 12, lines 10-23).

As per claim 40, Farris et al. and Vaziri et al. (column 22) teaches of a first gateway (see figure 4, block 72), wherein the controller (see figure 5, block 87) determines the set of data link parameters while the second gateway establishes the second data link protocol (inherent that it is TDM, see column 6, lines 60-64) over the second physical modem connection using the set of data link parameters (see column 12, lines 10-23 and column 6, lines 5-22).

6. Claim 33, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farris et al. (US 6438218 B1) in view of Vaziri et al. (US 6377570).

As per claim 33, Farris et al. teaches of a method, wherein the gateway-to-gateway transport link is a reliable transport link. However using an unreliable transport link as the gateway-to-gateway transport link is well known in the art.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use an unreliable transport link as the gateway-to-gateway transport link. The motivation to combine would have been to have both reliable and unreliable

transport link such as TCP and UDP, so that the method can provide and charge its users, according to different types of quality of service. Vaziri also discloses tcp (see figure 7b).

As per claim 41, Farris et al. teaches of a first gateway device, wherein the gateway-to-gateway transport link is a reliable transport link. However using an unreliable transport link as the gateway-to-gateway transport link is well known in the art.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use an unreliable transport link as the gateway-to-gateway transport link. The motivation to combine would have been to have both reliable and unreliable transport link such as TCP and UDP, so that the method can provide and charge its users, according to different types of quality of service. Vaziri also discloses tcp (see figure 7b).

7. Claims 34 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farris et al. (US 6438218 B1) in view of Vaziri et al. (US 6377570) further in view of Endo (US 6381038 B1).

As per claim 34, Farris et al. and Vaziri et al. teach of a method wherein the harmonizing of the set of data link parameters (see column 12, lines 10-23 and column 6, lines 5-22) includes initiating the first data link protocol (see column 6, lines 60-64), but does not expressly disclose stalling the first data link protocol.

Endo et al. teaches of a method of stalling the first data link protocol (see RNR, figures 12-15, and columns 25, 26, and 28).

Farris et al., Vaziri et al. and Endo et al. are analogous art because they are from the same field of endeavor of modem-to-modem communications over the Internet through gateways (see figure 12).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use Endo et al.'s method of stalling the first data link protocol (see RNR, figures 12-15, and columns 25, 26, and 28) in Farris et al.'s method of communication between a modem and gateway.

The motivation to combine would have been to have a gateway in a modem-to-modem communication system, which can achieve smooth and reliable communication by reducing a possibility of communication errors.

As per claim 42, Farris et al. and Vaziri et al. teach of a first gateway device, wherein the determining of the set of data link parameters (see column 12, lines 10-23 and column 6, lines 5-22) includes initiating the first data link protocol (see column 6, lines 60-64), but does not expressly disclose stalling the first data link protocol.

Endo et al. teaches of a method of stalling the first data link protocol (see RNR, figures 12-15, and columns 25, 26, and 28).

Farris et al., Vaziri et al. and Endo et al. are analogous art because they are from the same field of endeavor of modem-to-modem communications over the Internet through gateways (see figure 12).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use Endo et al.'s technique of stalling the first data link protocol (see RNR, figures 12-15, and columns 25, 26, and 28) in Farris et al.'s gateway device for communication between a modem and gateway.

The motivation to combine would have been to have a gateway in a modem-to-modem communication system, which can achieve smooth and reliable communication by reducing a possibility of communication errors.

8. Claims 35-37 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farris et al. (US 6438218 B1) in view of Vaziri et al. (US 6377570) in view of Endo (US 6381038 B1) as applied to claim 34 above, and further in view of Davis et al. (US 6049902).

As per claim 35, Farris et al., Vaziri et al. and Endo et al. teach of a method of determining the set of data link parameters and the first data link protocol as recited in claim 34, but does not expressly disclose the protocol being based on ITU V.42 standard.

As per claim 36, Farris et al. and Endo et al. teach of a method, wherein the stalling includes transmitting an RNR by the first gateway to the first client modem as referenced in claim 34 (see Endo et al. figure 15).

As per claim 37, Farris et al. and Vaziri et al. teach of a method, wherein the harmonizing of the set of data link parameters further includes resuming the first data

link protocol by transmitting an RR to the first client modem as referenced in claim 34 (see Endo et al. column 28).

For claim 35, Davis et al. (US 6049902) discloses a protocol being based on ITU V.42 standard (see column 6, lines 10-20).

For claim 35, at the time of the invention it would have been obvious to a person of ordinary skill in the art to use Davis et al.'s ITU V.42 standard (see column 6, lines 10-20) in Farris et al. and Endo et al.'s first data link protocol for reliable communications.

The motivation for claim 35, would have been to have a standard protocol such as the ITU V series, which describe modem operation and design in order to permit different, conforming computer systems to communicate. Thus, using a protocol such as the ITU V.42 protocol, which is an error detection and recovery via retransmission protocol, would overcome data communication errors.

As per claim 43, Farris et al. and Endo et al. teach of a first gateway device, determining the set of data link parameters and the first data link protocol as recited in claim 42, but does not expressly disclose the protocol being based on ITU V.42 standard.

As per claim 44, Farris et al. and Endo et al. teach of the first gateway device, wherein the stalling includes transmitting an RNR by the first gateway to the first client modem as referenced in claim 42 (see Endo et al. figure 15).

As per claim 45, Farris et al., Vaziri and Endo et al. teach of the first gateway device, wherein the determining of the final set of data link parameters further includes

resuming the first data link protocol by transmitting an RR to the first modem as referenced in claim 42 (see Endo et al. column 28).

For claim 43, Davis et al. (US 6049902) discloses a protocol being based on ITU V.42 standard (see column 6, lines 10-20).

For claim 43, at the time of the invention it would have been obvious to a person of ordinary skill in the art to use Davis et al.'s ITU V.42 standard (see column 6, lines 10-20) in Farris et al. and Endo et al.'s first data link protocol for reliable communications.

The motivation for claim 43, would have been to have a standard protocol such as the ITU V series, which describe modem operation and design in order to permit different, conforming computer systems to communicate. Thus, using a protocol such as the ITU V.42 protocol, which is an error detection and recovery via retransmission protocol and data compression standard, would overcome data communication errors.

### ***Response to Arguments***

11. Applicant's arguments with respect to claims 30-45 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form 892.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH RIYAMI whose telephone number is (571)270-3119. The examiner can normally be reached on Monday through Thursday 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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